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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,913	04/25/2001	Masahiro Suzuki	032378.01	6830

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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/840,913	Applicant(s) SUZUKI ET AL.	
	Examiner LUONG T. NGUYEN	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/02/2006 has been entered.

Response to Arguments

2. Applicant's arguments filed on 3/02/2006 have been fully considered but they are not persuasive.

In re page 7, Applicants argue that Tsai does not teach or suggest a way of calculating an optimum exposure amount for the exposure.

In response, the examiner considers that Tsai does disclose this feature. Tsai discloses camera 100 captures multiple images of a scene at five different exposure levels $N+1$, $N+1/2$, N , $N-1$, $N-1/2$. If the $N+1$ data does not conform to the specified criteria, the electronic data processing unit 300 retrieves the data for the first pixel of the $N+1/2$ exposure range image and compares (calculating) the data with a preselected range to determine if the pixel if the pixel is underexposed or overexposed (i.e. calculating an optimum exposure amount of the exposure), column 1, line 57 – column 2, line 8; column 5, lines 1-45.

Claim Objections

3. Claims 19-23 are objected to because of the following informalities:

Claim 1 has been canceled, the new claim 19 cannot depend on claim 1. For the purpose of examination, the examiner considers that new claim 19 depend on new claim 18.

Claim 2 has been canceled, the new claim 20 cannot depend on claim 2. For the purpose of examination, the examiner considers that new claim 20 depend on new claim 19.

Claim 2 has been canceled, the new claim 21 cannot depend on claim 2. For the purpose of examination, the examiner considers that new claim 21 depend on new claim 19.

Claim 1 has been canceled, the new claim 22 cannot depend on claim 1. For the purpose of examination, the examiner considers that new claim 22 depend on new claim 18.

Claim 1 has been canceled, the new claim 23 cannot depend on claim 1. For the purpose of examination, the examiner considers that new claim 23 depend on new claim 18.

Therefore, claim 19 (line 1), claim 22 (line 1), claim 23 (line 1), "The electronic camera of claim 1" should be changed to -- The electronic camera of claim 18--, and

Claim 20 (line 1), claim 21 (line 1), "The electronic camera of claim 2" should be changed to --The electronic camera of claim 19--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2612

5. Claims 12-19, 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsai (US 5,309,243).

Regarding claims 18 and 19, Tsai discloses a method and apparatus for extending the dynamic range of an electronic imaging system, comprising an electronic camera, disclosed as an electronic camera 100 (figure 1, column 4, line 30-35); a photoreceptor device, disclosed as, electronic image sensor 120 (figure 1, column 4, lines 45-55); a setting device, disclosed as camera control processor 170 (figure 1, column 4, line 66 through column 5, line 8); a calculation device, disclosed as electronic data processing unit 300 (figure 1, column 2, lines 8-45, column 4, line 66 through column 5, line 54); fixed first exposure amount, disclosed as double amount of light at level N, called level (N+1), (column 5, lines 1-54); fixed second exposure amount, disclosed as normal exposure range, called level N (column 5, lines 1-54); fixed third exposure amount disclosed as half the amount of light at level N, called level (N-1), (column 5, lines 1-54); optimum exposure amount, disclosed as the amount of light at geometric means level between level N and level (N+1), called level (N+1/2), (column 5, lines 1-54); a prescribed value, disclosed as half amount of difference between amount of light at normal exposure level N and level (N+1).

Tsai also discloses the electronic image sensor 120 output image data of images of a scene captured at different exposure levels, for example, N+1, N, and N-1 (figure 1, column 3, lines 1-18, N+1, N, N-1, each corresponds to the first output, the second output, the third output, respectively. Note that camera control processor 170 does not calculate exposure amount, it sets exposure amount at different exposure levels, column 4, line 66 through column 5, line 9);

Art Unit: 2612

Regarding claim 21, Tsai discloses the fixed first exposure amount, the fixed second exposure amount and the fixed third exposure amount correspond to different shutter speed (column 6, lines 11-25).

Regarding claim 22, Tsai discloses a memory device as framestore 200 (figure 1, column 4, lines 54-64).

Regarding claim 23, Tsai discloses the electronic camera continues to change the selected exposure amount until an output of the photoreceptor device corresponding to the selected exposure amount is within a predetermined range of the optimum exposure amount (column 5, lines 1-54).

As to claims 12-17, claims 12-17 are method claims of apparatus claims 18-19 and 21-22. Therefore claims 12-17 are rejected for the reasons given respect to claims 18-19 and 21-22.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (US 5,309,243) in view of Chatenever et al. (US 5,162,913).

Art Unit: 2612

Regarding claim 20, Tsai fails to specifically disclose a ratio of the first exposure amount, the second exposure amount and the third exposure amount is substantially 1:8:64. However, Chatenever et al. teach an apparatus for automatically adjusting the exposure of the video images, which may be employed at exposure times of 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10,000 seconds (column 8, lines 20-25). It is notoriously well known in the art that at each desired fixed exposure times, such as 1/30, 1/250 and 1/2000, which show the ratio 1:8:64, there is an exposure amount is set, respectively. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the camera in Tsai by the teaching of Chatenever et al. in order to let the user selects freely a desired exposure time.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUONG T. NGUYEN whose telephone number is (571) 272-7315. The examiner can normally be reached on 7:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID L. OMETZ can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN
3/19/06



LUONG T. NGUYEN
PATENT EXAMINER